

ACCESSION NR: AP4040951

S/0020/64/156/005/1121/1123

(Corresponding member AN SSSR)

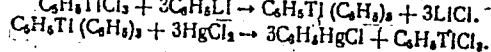
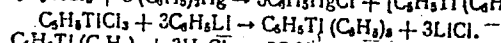
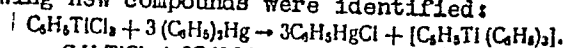
AUTHOR: Razuvaev, G. A.; Latyayeva, V. N.; Vyshinskaya, L. I.; Vyshinskiy, N. N.

TITLE: New monocyclopentadienyl derivatives of titanium

SOURCE: AN SSSR. Doklady*, v. 156, no. 5, 1964, 1121-1123

TOPIC TAGS: titanium, titanium derivative, monocyclopentadienyl derivative, Ti monocyclopentadienyl derivative, phenol, cyclopentadienyl dimethyltitane, diphenyl mercury, phenyl mercury chloride, organotitanium compound

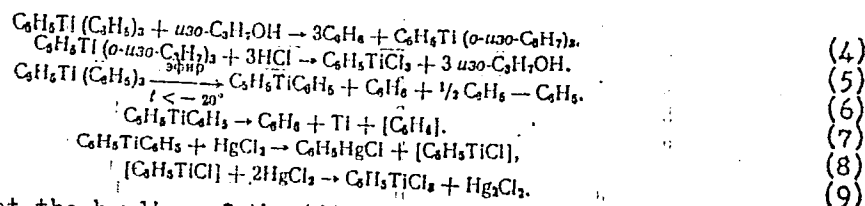
ABSTRACT: The authors analyzed reactions wherein the Cl atoms in monocyclopentadienyl titanium trichloride were replaced with phenyl groups. G. A. Razuvaev et al (DAN, 150 (1963) 566) Previously showed that, during the reaction of titanium tetrachloride, all four Cl atoms are replaced by phenyl radicals. The authors therefore initially analyzed the exchange reaction of diphenyl mercury with $C_5H_5TiCl_3$ at a 3 to 1 ratio in a benzene solution at room temperature. The following new compounds were identified:



(1)
(2)
(3)

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Authors conclude that the bonding of the titanium atom with the cyclopentadienyl ring in the examined compounds is very similar to a ferrocene bond. Orig. art. has: 11 Formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute for Chemistry of Gorki State University)

SUBMITTED: 17Feb64

ENGL: 00

SUB CODE: IC

NO REF SOV: 003

OTHER: 002

Card 2/2

ALEXANDROV, Yu.A.; DRUZHKOV, G.M.; ZHIL'TSOV, S.P.; RAZUVAYEV, G.A.

Certain regularities in the liquid phase oxidation of isopropyl-
mercury by oxygen. Dokl. AN SSSR 157 no.6:1395-1398 Ag '62.
(MIRA 17:9)

1. Gilem-korrespondent AN SSSR (for Razuvayev).

RAZUVAYEV, G.A.; MINSKER, K.S.; SENGALOV, Yu.A.

Initiation of vinyl chloride polymerization by the reactions
between triethylaluminum with halogen-containing organic
compounds. Dokl. AN SSSR 158 no.1:170-172 S-O '64
(MIRA 17:8)

1. Chlen-korrespondent AN SSSR (for Razuvayev).

L 19603-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 AFWL/SSD/ASD(a)-5/ESD(gs) RM

ACCESSION NR: AP5003147

S/0020/64/158/002/0382/0384

AUTHOR: Vyazankin, N. S.; Razuvayev, G. A. (Corresponding member AN SSSR); Bychkov, V. T.

TITLE: Bis-(triethylgermyl)-cadmium. Synthesis and properties

SOURCE: AN SSSR. Doklady, v. 158, no. 2, 1964, 382-384

TOPIC TAGS: organic synthetic process, cadmium compound, germanium compound, mercury compound, cadmium, germanium, mercury, organosilicon compound

Abstract: In view of recently developed methods of producing bi- and polymetalloorganic compounds by reaction of diethylmercury with organo-germanium and organosilicon hydrides, the authors attempted to expand the synthetic potentialities of this reaction by replacing diethylmercury with its structural analogs. Triethylgermanium reacted with diethylcadmium under mild conditions, forming bis-(triethylgermyl)-cadmium and ethane in yields of 78.6 and 90.3%, respectively. Bis-(triethylgermyl)-cadmium is a lemon-yellow nonvolatile liquid, which cannot be isolated in the pure state. When heated in an evacuated ampoule to 125-130°, it decomposed, forming metallic cadmium and hexaethyldigermene in high yields. Bis-(triethylgermyl)-cadmium is oxidized vigorously by atmospheric oxygen, yielding bis-triethyl-

Card 1/2

L 19603-65

ACCESSION NR: AP5003147

germanium oxide and cadmium. The reactions of bis-(triethylgermyl)-cadmium and its mercury analog with benzoyl peroxide differ appreciably, the former reacting with two moles of the peroxide to form benzoyoxytriethylgermane and cadmium dibenzoate. The latter, reacting with an equimolar amount of the peroxide, results in the isolation of mercury in pure form. The greater ease of the reactions of the cadmium compound in comparison with its mercury analog was demonstrated for reactions with alkyl bromides and hydrolysis by water. Bis-(diethylgermyl)-cadmium undergoes an exothermal reaction with 1,2-dibromoethane, yielding cadmium bromide, ethylene, and triethylbromogermane. Orig. art. has 5 formulas.

ASSOCIATION: none

SUBMITTED: 14 May 64

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 003

OTHER: 002

JPRS

Card 2/2

VYAZANKIN, N.S.; RAZUVAYEV, G.A.; KORNEVA, S.P.; KRUGLAYA, G.A.; GALIULINA, R.F.

Reaction of triethyl tin hydride and its analogs with diethylzinc.

Dokl. AN SSSR 158 no.4:884-887 O '64.

(MIRA 17:11)

1. Laboratoriya stabilizatsii polimerov AN SSSR, Gor'kiy. 2. Chlen-korrespondent AN SSSR (for Razuvayev).

L 18221-65 ENT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 ASD(m)-3/AFETR/SSD/AFWL RM

S/0020/64/159/001/0158/0159

ACCESSION NR: AP4049140

AUTHORS: Razuvayev, G. A. (Corresponding member AN SSSR); Minsker, K. S.; Sangalov, Yu. A.

TITLE: Low-temperature polymerization of vinylchloride, initiated by the reaction of aluminumalkyls with halogens

SOURCE: AN SSSR. Doklady*, v. 159, no. 1, 1964, 158-159

TOPIC TAGS: polymerization, low temperature research, vinylchloride, polyvinylchloride, aluminumalkyl compound

ABSTRACT: It was the purpose of this experiment to polymerize vinylchloride at low temperatures (initiating this process with $(C_2H_5)_3Al-Cl_2$). Experimental results showed that the polymerization of vinylchloride was related to the reaction of chloride or bromide with aluminumalkyl. It was observed that upon constant addition of chlorine gas (at the rate of 25-30 ml/min) to the reaction solution (1.5 moles of triethylaluminum in 100 g of vinylchloride) polyvinylchloride was obtained in a wide range of temperatures (-15 to -70C), as shown in Fig. 1 on the Enclosure. A vital factor in the polymerization process was the rate of introduction of the chlorine into the reaction zone. Increasing the concentration of vinylchloride from 1.6 to

Card 1/3

L 18221-65

ACCESSION NR: AP4049140

3.2 moles (for every 0.024 moles $(C_2H_5)_3Al$) increased the conversion by 2.5 times in the same polymerization time. Polymerization was initiated only when the chlorine reacted with the aluminum-organic-compound containing at least one alkyl group. The nature of the alkyl group in the aluminumalkyl compound determined this compound's activity in the polymerization. The largest yields of polyvinylchloride were obtained with $(iso-C_4H_9)_3Al$ and $(C_2H_5)_3Al$. When the chlorine was replaced by bromine in the presence of $(C_2H_5)_3Al$, there was a conversion drop from 15 to 25%. Iodine gave no reaction. It was shown that by using the reaction of halogens with aluminumalkyl compounds it was possible to polymerize other vinyl monomers such as vinylacetate at low temperatures. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: none

SUBMITTED: 08Jun64

SUB CODE: OC , TD

NO REF SOV: 002

ENCL: 01

OTHER: 002

Card 2/3

L 18221-65

ACCESSION NR: AP4049140

ENCLOSURE: 01

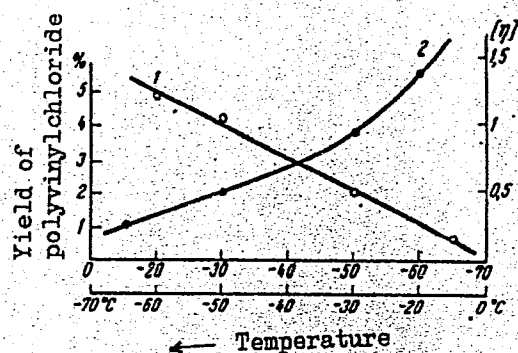


Fig. 1. Influence of the temperature of polymerization on yield (1) and characteristic viscosity of polyvinylchloride (2) during the polymerization of vinylchloride in system: $(C_2H_5)_3Al-Cl_2$; $(C_2H_5)_3Al = 0.024$ moles, vinylchloride = 1.6 moles, 2.5 hours).

Card 3/3

L 24832-65 EWT(m)/EPF(c)/EPR/EWP(j) Pc-Li/Pr-Li/Ps-Li RM

ACCESSION NR: AP4049488

S/0020/64/159/002/0383/0384

39
38
B

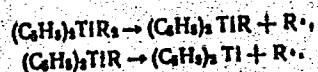
AUTHOR: Razuvayev, G.A., (Corresponding member AN SSSR), Latyayeva, V.N.,
Vy*shinskaya, L.I.

TITLE: Decomposition of biscyclopentadienylderivatives of titanium in solvents

SOURCE: AN SSSR. Doklady*, v. 159, no. 2, 1964, 383-384

TOPIC TAGS: biscyclopentadienyl titanium, organotitanium compound, electron paramagnetic resonance, alkyltitanium solvation

ABSTRACT: The purpose of the work was to determine if there is any difference in the thermal decomposition of biscyclopentadienyldiethyl titanium in n-hexane and tetrahydrofuran. Studies of EPR spectra indicated that decomposition takes place by successive rupture of radicals with formation of intermediate compounds of trivalent Ti, which further decompose to compounds of divalent Ti that give no EPR signal. Both solvents behave identically. Thus, it can be assumed that the process takes place in accordance with



(1)

(2)

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L 24832-65

ACCESSION NR: AP4049488

The nature of the radical does not affect the general nature of the exchange and decomposition reactions of $(C_5H_5)_2 TiR_2$. Orig. art. has: 1 figure and 8 chemical equations.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo (Scientific Research Institute of Chemistry, Gor'kiy State University)

SUBMITTED: 02Jul64

ENCL: 00

SUB CODE: OC

NO REF SOV: 002

OTHER: 002

Card 2/2

TEL'NOY, V.I.; RABINOVICH, I.B.; RAZUVAYEV, D.A.

Thermochemistry of tetraethylsilicon and hexamethyldisiloxane.
Dokl. AN SSSR 159 no.5:1106-1108 D 162 (MIRA 1841)

1. Institut khimii pri Gor'kovskom gosudarstvennom universitete
im. N.I. Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for
Razuvaev).

GOL'DANSKIY, V.I.; KITAYGORODSKIY, I.I., prof.; KOST, A.N., prof.;
LEVICH, V.G.; ORMONT, B.F., prof.; RAZUVAYEV, G.A.;
TAL'ROZE, V.L., prof.; CHERNOV, A.G.; IVANOV, S.M., red.

[Chemistry on new frontiers] Khimiia na novykh rubezhakh.
Moskva, Izd-vo "Znanie," 1965. 46 p. (Novoe v zhizni.
nauke, tekhnike. XI Seriya: Khimiia, no.2) (MIRA 18:4)

i. Chlen-korrespondent AN SSSR (for Gol'danskiy, Levich,
Razuvayev).

RAZUVAYEV, G.A.; TERMAN, L.M.; YANOVSKIY, D.M.

Radical reactions of peroxycarbonates. Part I: Thermal decomposition
of diphenylperoxydicarbonate in inert solvents. Zhur.org.khim. i
no.2:274-280 F '65. (MIRA 18:4)

L 59601-65 EWT(m)/EPF(c)/ENP(j) Pc-4/Pr-4 RM
ACCESSION NR: AP5017965 UR/0062/65/000/006/1009/1110
541.6+538.113

24
23
B

AUTHOR: Dodonov, V. A.; Petukhov, G. G.; Razuvayev, G. A.

TITLE: Dehydrochlorination of polyvinyl chloride and some of the chemical properties of the polyene obtained

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 6, 1965, 1109-1110

TOPIC TAGS: polyvinyl chloride, polyene, electron spin resonance, dehydrochlorination

ABSTRACT: In order to elucidate the part played by certain properties of the polyene formed, a complete detachment of hydrogen chloride from polyvinyl chloride (PVC) was carried out in the presence of glycol monomethyl ether alcoholate at 50-60C. The PVC used was precipitated twice and had a molecular weight of 30,000. The polyene formed gave a strong ESR signal with a g factor (2) almost equal to that of diphenylpicrylhydrazine. The concentration of paramagnetic particles was 1017 per gram of polyene. The signal width and lack of hyperfine structure indicated a considerable delocalization of the unpaired electrons. The amplitude of the signal changed markedly under the influence of atmospheric oxygen because

Card 1/2

L 59601-65
ACCESSION NR: AP5017965

of a decrease in the average degree of unpairing. On prolonged storage in air, the polyene oxidized irreversibly. It added halogens, and its presence had a catalytic effect on the chlorination of certain hydrocarbons (n-hexane, benzene). The chlorination products contained mono-, di-, and higher chlor-substituted hydrocarbons.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gosudarstvennogo universiteta (Scientific Research Institute of Chemistry, Gor'kiy State University)

SUBMITTED: 020ct64

ENCL: 00

SUB CODE: 0C, NP

NO REF SOV: 003

OTHER: 004

Card

2/2

RAZUVAYEV, G.A.; VASILEYSKAYA, N.S.

Photoreaction of mercuric chloride with chloroform in the presence of pyridine. Izv. AN SSSR. Ser. khim. no.7:1285-1286 '65. (MIRA 18:7)

1. Laboratoriya stabilizatsii polimerov AN SSSR, Gor'kiy.

RAZUVAYEV, G.A.; KAPLIN, Yu.A.; MITROFANOVA, Ye.V.

Reactions of phenyl compounds of III group elements with benzene.
Izv. AN SSSR. Ser. khim. no.8:1489-1491 '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut khimii Gor'kovskogo
gosudarstvennogo universiteta im. N.I. Lobachevskogo.

VYAZANKIN, N.S.; RAZUVAYEV, G.A.; BYCHKOV, V.T.

New reactions of bis(triethylgermyl)cadmium. Izv. AN SSSR. Ser.
khim. no.9:1665-1667 '65. (MIRA 18:9)

1. Laboratoriya stabilizatsii polimerov AN SSSR, Gor'kiy.

L 1157-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5022008

UR/0286/65/000/014/0078/0078

678.74 : 66.097

AUTHOR: Razuvayev, G. A.; Shevlyakov, A. S.; Yanovskiy, D. M.; Kofman, L. P.;
Stupen', L. V.; Pavlov, S. M.

TITLE: A method for polymerizing vinyl compounds. Class 39, No. 172994

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 78

TOPIC TAGS: emulsion polymerization, vinyl plastic, polymerization initiator,
polymer

ABSTRACT: This Author's Certificate introduces a method for polymerizing vinyl compounds. Polymerization time is reduced and polymer yield is increased by using alkyl or aryl esters of percarbonic acid as the initiator for block or emulsion polymerization.

ASSOCIATION: none

SUBMITTED: 12Jan57

ENCL: 00

SUB CODE: OG, MT

NO REF SOV: 000

OTHER: 000

Card 1/1

RAKUSIN, G.A., LONIN, L.M., TANUSAY, E.M., MIRONOVA, L.N.

Radical reactions of organic peroxydicarbonates. Part 3: Interaction
of dicyclohexylperoxydicarbonate with dimethylaniline. Zhur. org. khim.
1 no.1:79-82 JA '65. (MIRA 18:5)

RAZUVAYEV, G.A.; MINSKER, K.S.; CHERNOVSKAYA, R.P.; BURLAKOVA, G.I.

Modification of the Ziegler-Natta catalysts in the polymerization
of olefins. Vysokom.sped. 7 no.1:39-44 Ja '65.

(MIRA 18:5)

RAZUVAYEV, G.A.; SANGALOV, Yu.A.; MISHKIN, K.S.; KOVALEVA, N.V.

Polymerization of vinyl chloride in the presence of the system
alkylaluminum - alkyl halide. Vysokom. speed. 7 no.3:539-545
Mr 165. (MIRA 18:7)

1. Institut khimicheskikh produktov i akrilato.

RAZUVAYEV, G.A.; LATYAYEVA, V.N.

Covalent organometallic compounds formed by transition metals.
Usp.khim. 34 no.4:585-617 Ap '65. (MIRA 18:8)

1. Institut khimii pri Gor'kovskom gosudarstvennom universitete.

RAZUVAYEV, G.S.; RAZUVAYEV, V.N.; RAZUVAYEV, I.I.

Reactions of bispropenyl-1,1-diphenylsilanes with benzyl
chloride and triphenylmethane. Dokl. Akad. Nauk. 35 no.1:
169-174 (1974) (a) (b). (MIRA 19:2)

BEZUKHIN, G.M.; DOLBROV, G.N.; LEBEDEV, S.P.; 1977; 35; 174-177.

Thermal decomposition of organomercury compounds in halogen-
containing solvents. Part 1: Decomposition of dimethylmercury
in benzene. Zhur. ob. khim. 35 no.1:174-177, 1977. (1:15)

L 32656-65 EWT(m)/EPF(c)/ENP(j)/EWA(c) Pc-4/Pr-4 RM
ACCESSION NR: AP5005555 S/0079/65/035/002/0394/0394

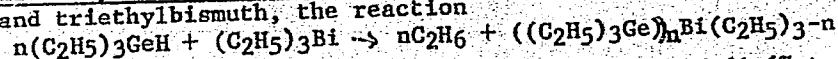
AUTHOR: Kruglaya, O. A.; Vyazankin, N. S.; Razuvaev, G. A.

TITLE: Bimetalloorganic compounds with Ge-Bi bonds

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 394

TOPIC TAGS: heteroorganic compound, bimetalloorganic compound, organogermanium compound, organobismuth compound

ABSTRACT: Organic compounds with germanium-bismuth bonds were prepared by reacting triethylgerman and triethylbismuth, the reaction



proceeding in the absence of air. At $n=3$ and 140-145C a yield of 61.6% tris(triethylgermyl)bismuth (I) was obtained in 8 hrs, and at 130-135C 86.3% of ethyl (bis(triethylgermyl))bismuth was formed even with an excess of triethylgerman. Equimolar amounts of the reagents at 145-150C yielded 8.5% of diethyl(triethylgermyl)bismuth, but mainly (I) was formed under these conditions. The new compounds can be distilled in a nitrogen atmosphere and are stable up to 200C. (I) decomposes at 270C to give bismuth and hexaethylgerman, and reacts with triethylstannan at

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L 32656-65

ACCESSION NR: AP5005555

170C to give bismuth, hexaethyldistannan and triethylgerman. Bismuth and triethyl-
benzoylhydroxygerman were formed from (I) with benzoyl peroxide in ethyl ether,
and bismuth, triethylgerman and triethylacetylhydroxygerman were formed in glacial
acetic acid. The latter reacts similarly with bis(triethylgermyl)mercury. The
results represent part of a research series on bimetalloorganic compounds. The
physical properties of the new compounds are described. Orig. art. has: 3 formu-
las.

ASSOCIATION: Laboratoriya stabilizatsii polimerov Akademii nauk SSSR, Gorkiy
(Polymer stabilization laboratory, Academy of sciences, SSSR)

SUBMITTED: 08Aug64

ENCL: 00

SUB CODE: 0C

NO REF SOV: 002

OTHER: 000

Card 2/2

L 26943-65 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) Pc-L/Pr-L IJP(c) RM/JD

ACCESSION NR: AP5005557

S/0079/65/035/002/0395/0396

AUTHOR: Vyazankin, N. S.; Razuvayev, G. A.; Bychkov, V. T.

TITLE: Bis-(triethylsilyl)cadmium

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 395-396

TOPIC TAGS: organometallic compound, bis (triethylsilyl)cadmium, chemical property, organoelemental compound

ABSTRACT: An organometallic compound with Si-Cd bond, bis-(triethylsilyl)cadmium(I), has been prepared by reacting triethylsilane with diethylcadmium at 110C in evacuated and sealed ampuls. The compound is a yellow liquid readily oxidized in air. Its structure was confirmed by analyzing the products of the reactions of I with bromine in CCl₄, I with benzoylperoxide in benzene, and decomposition at 140C. The reactions of I and its analog bis-(triethylgermyl)cadmium with ethyl bromide gave different products. Orig. art. has: 2 formulas. [JK]

ASSOCIATION: Laboratoriya stabilizatsii polimerov Akademii nauk SSSR, Gor'kiy (Laboratory of Polymer Stabilization, Academy of Sciences, SSSR)

Card 1/2

L 26943-65

ACCESSION NR: AP5005557

SUBMITTED: 22Jun64

NO REF SOV: 001

ENCL: 00

OTHER: 001

SUB CODE: OC, G C

ATD PRESS: 3189

Card 2/2

ETLIS, V.S.; TROFIMOV, N.N.; RASUVAYEV, G.A.

Chlorination of some alkene sulfides. Zhur. ob. khim. 35
no.3:475-479 Mr 165. (MIRA 18:4)

RAZUVAYEV, G.A.; PETUKHOV, G.G.; TITOV, V.A.; PRIZHEV, O.N.

Reaction of triphenylbismuth with benzene. Zhur. ob. Khim.
35 no.3:481-484 Mr '65. (MIRA 18:4)

PANKRATOVA, V.N.; IATYAYEVA, V.N.; RAZUVAYEV, G.A.

Oxidation of diphenylcadmium in organic solvents. Zhur. ob.
khim. 35 no.5:900-903 My '65. (MIRA 18:6)

RAZUVAYEV, G.A.

Joint work of scientists and engineers. Vest. AN SSSR 35 no. 6:63-65
Je '65. (MIRA 18:8)

1. Obshchekorrespondent AN SSSR.

RAZUVAYEV, G.A.; STEPNIK, L.P.; MITROFANOVA, Ye.V.

Reactions of aluminum triisopropylate with peroxides and
anhydrides. Zhur. ob. khim. 35 no.6:1095-1098 Je '65.
(MIRA 18:6)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete imeni Lobachevskogo.

RAZUVAYEV, G.A.; ZHIL'TSOV, S.F.; ALEKSANDROV, Yu.A.; LRUZHKOV, O.N.

Preparation and certain properties of isopropyl mercury
isopropylate. Zhur. ob. khim. 35 no.7:1152-1156 J1 '65.
(MIRA 13:8)

GALEEV, R.F.; LEONOV, G.M.; LEONOV, G.M.; GALIMOV, G.A.

Oxidation of diphenylsine in cyclohexane, chloroform, and
carbon tetrachloride. Dokl. Akad. Nauk. 25 no.7 1164-1166
Jl '65. (MIRA 1969)

SHCHERBACH, G.A.; IMVETSOV, A.N.; ZHIL'TSOV, A.F.; VASUVAYEV, G.A.

Kinetics and mechanism of the liquid-phase oxidation of
diisopropylmercury. Zhur. ob. khim. 35 no.8:1440-1447
Ag '68. (MIRA 18:8)

LATYAYEVA V.N., RAZUVAYEV G.A., KILYAKOVA G.A.

D-phenyltitanium complexes with tetrahydrofuran and ammonia.
Zhur. ob. khim. 15 no.6:1498-1499 Ag '65. (MIRA 13:8)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitet.

RAZUVAYIN, G.A.; STILOVIR, L.P.

Reactions of organoaluminum compounds with acyl peroxides and anhydrides. Zhur. ob. khim. 35 no.9:1672-1676 S '69.

(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I. Lobachevskogo.

RAZUVAYEV, G.A.; SARGALOV, Yu.A.; MENSKER, A.S.; BOGACH, I.M.; BABOVSAYA, N.S.

Initiation of vinyl chloride polymerization by reactions between
lower unsaturated chlorocarbons and triethylaluminum. Dokl. AN SSSR
160 no.1:143-144 Ja '65. (MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet. 2. Chlen-korrespondent
AN SSSR (for Razuvayev).

L 33530-65 EWT(m)/EWF(c)/EPR/EWP(j)/T Pc-h/Pr-h/Ps-h RPL WW/RM

ACCESSION NR: AP5007567

S/0020/65/160/005/1093/1096

AUTHOR: Razuvayev, G. A. (Corresponding member AN SSSR); Minsker, K. S.;
Grayevskiy, A. I.; Chernovskaya, R. P.

TITLE: Copolymerization of vinyl chloride with olefins on Ziegler systems

SOURCE: AN SSSR. Doklady, v. 160, no. 5, 1965, 1093-1096

TOPIC TAGS: polyvinylchloride, poly(vinyl chloride), polyolefin, Ziegler catalyst, alkylaluminum, titanium tetrachloride, copolymerization, vinyl chloride olefin copolymerization, ethylene, propylene

ABSTRACT: Copolymerization of vinyl chloride and ethylene or propylene was attempted on catalytic mixtures of the Ziegler catalyst type. Previous studies by some of the authors had indicated that vinyl chloride does not polymerize to solid polymers in the presence of mixtures of trialkylaluminum or dialkylaluminum halide with titanium tetrachloride, and that alkoxy derivatives of alkylated aluminum were catalytically active. Therefore, copolymerization of vinyl chloride with ethylene or propylene was conducted in the presence of a catalytic system consisting of diethylaluminum ethoxide and titanium tetrachloride or diethylaluminum ethoxide, ethyl(ethoxy)bromoaluminum, and titanium tetrachloride. The

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L 33530-65

ACCESSION NR: AP5007567

copolymerization was conducted at 60C and 10 atm. The polymers obtained contained 42—53% chlorine. The yields depended on the catalyst concentration in the reacting mixture. Di-isobutylaluminum isobutoxide was also catalytically active, but to a lesser degree. The copolymers obtained were either a fine white powder (in the case of ethylene) or a slightly granulated powder (in the case of polyethylene). The chlorine content affected the physical, physicochemical, and thermomechanical properties of the copolymers. As compared with homopolymers, the copolymers had a higher solubility in organic solvents; the glass transition temperature of copolymers was higher than that of the poly(vinyl chloride), but lower than that of the polyolefins. The flow point, according to the thermomechanical curves, was in the 60—90C range for the propylene copolymer and in the 90—128C range for the ethylene copolymer. Thermal stability of the copolymers changed within an interval of 3 to 40 minutes with a change in the chlorine content from 50 to 1%. The temperature of decomposition changed in the same manner. Orig. art. has: 1 table and 3 figures. [BN]

ASSOCIATION: Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy institut khlor-organicheskikh produktov i akrilatov (State All-Union Scientific Research Institute of Chloroorganic Products and Acrylates)

Card 2/3

L 33530-65

ACCESSION NR: AP5007567

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 003

OTHER: 000

ATD PRESS: 3208

Card 3/3

HAZUVAYEV, G.S.; TEMAN, S.M.; YANOVSKIY, I.M.

Nature of radicals in the initiation of polymerization of
peroxydicarbonates. Dokl. AN SSSR 161 no.3:104-106 Mr 65.
(MIRA 1844)

1. Galen-korrespondent AN SSSR (for Hazuvayev).

RAZUVAYEV, G.A.; DRUZHKOV, G.N.; ZHIL'TSOV, S.P.; PETUKHOV, G.G.

Isotope and mass spectrometric method of studying the reaction of diphenylmercury with alcohols. Dokl. AN SSSR 163 no.1:119-122 J1 '65.

(MIRA 18:7)

1 Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for Razuvayev).

REBYANIN, G.A.; KULIK, G.S.; KRYAKOVA, V.N.; SANGALOV, Yu.A.

Polimerizatsiya etilovogo khlorida inditsirovannaya reaktsiei s karbon
lithiumom s litsiumovymi organometallicheskimi soedineniyami. Dokl. AN SSSR
163 no.4:1046-1048, 1965. (MIRA 18:8)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
Gosudarstvennom universitete im. N.I. Lobachevskogo. 2. Chlen-
Korrespondent AN SSSR (Dr. Pasurayev).

VYAZANKIN, N.S.; RAZUVAYEV, G.A.; BREVNOVA, T.N.

Synthesis and properties of tert-butyl ester of
 β -(trimethylsilyl)-perpropionic acid. Dokl. AN SSSR 163
no.6:1389-1392 Ag '65. (MIRA 18:8) /

1. Laboratoriya stabilizatsii polimerov AN SSSR, Gor'kiy.
2. Chlen-korrespondent AN SSSR (for Razuvayev).

L 13621-66	EWT(m)/EWP(j)/T/EWA(c)	RPL WW/RM
ACC NR: AP6000976	(A)	SOURCE CODE: UR/0286/65/000/022/0057/0058
AUTHORS: <u>Etlis, V. S.</u> ; <u>Sineokov, A. P.</u> ; <u>Razuvayev, G. A.</u>		
ORG: none		
TITLE: A method for obtaining sulfur-containing polyurethanes. Class 39, No. 176397 <u>announced by State Unified Scientific Research Institute of Organochlorine Products</u> <u>and Acrylates (Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy institut</u> <u>khlororganicheskikh produktov i akrilatov)]</u>		
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 57-58		
TOPIC TAGS: sulfur, sulfur compound, urethane, catalyst, amine, ethylene compound		
ABSTRACT: This Author Certificate presents a method for obtaining sulfur-containing polyurethanes by the interaction of isocyanates and thioisocyanates with a sulfur-containing compound in the presence of a catalyst (ternary amines). To increase the thermal resistance of the <u>polyurethanes</u> , <u>ethylene sulfide</u> is used as the sulfur-containing compound.		
SUB CODE: 07/	SUBM DATE: 01Apr62	
Card 1/1	UDC: 678.664:547.313.2'569.2	

RAZUVAYEV, G.A.; VASILEVSKAYA, N.S., kand.khim.nauk

Synthesis, study and use of organic peroxides; conference in
Lvov. Vest. AN SSSR 35 no.12:108-109 D '65.

(MIRA 19:1)

1. Chlen-korrespondent AN SSSR (for Razuvayev).

ACC. NR: AP7012419

SOURCE CODE: UR/0079:66:036/011/2025/2026

AUTHOR: Vynzankin, N. S.; Gladyshev, Ye. N.; Korneva, S. P.; Razuvayev, G. A.

ORG: Laboratory of Polymer Stabilization, AN SSSR, Gor'kiy (Laboratoriya stabilizatsii polimerov AN SSSR)

TITLE: Reaction of triethylsilyl- and triethylgermyllithium with ethylenic hydrocarbons

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 2025-2026

TOPIC TAGS: lithium compound, hydrocarbon resin, silane

SUB CODE: 07

ABSTRACT: A convenient method of synthesizing triethylgermyllithium and triethylsilyllithium by the reaction of lithium with triethylgermylmercury or triethylsilylmercury in tetrahydrofuran or benzene medium was developed. Triethylgermyllithium and triethylsilyllithium are highly reactive, adding readily to unactivated multiple bonds in benzene medium. Reactions were conducted between triethylsilyllithium and ethylene and propylene, yielding tetraethylsilane and triethylpropylsilane, respectively. Triethyl-n-hexylsilane and triethyl-n-hexylgermane were produced by reaction of the lithium salts with hexene-1. (The reaction of the germyl salt required more rigorous conditions.) Triethylsilyllithium and triethylgermyllithium react with

Cord 1/2

UDC: 547.245+547.246

0932 1354

ACC NR: AP7012419

styrene exothermally, yielding triethyl(beta-phenethyl) silane and its germanium analog, along with an admixture of telomerization products of styrene containing $(C_2H_5)_3Si-$ or $(C_2H_5)_3Ge-$ residues. Orig. art. has: 2 formulas.

[JPRS: 40,422]

2/2

ACC NR: A27002667

SOURCE CODE: UR/0079/66/036/008/1491/1498

AUTHOR: Razuvayev, G. A.; Latyayeva, V. N.; Vyshinskaya, L. I.; Kilyakova, G. A. 34

ORG: Scientific Research Institute, Gor'kiy State University im. N. I.

Lobachevskiy (Nauchno-issledovatel'skiy institut pri gor'kovskom gosudarstvennom universitete)

TITLE: Some reactions of Bis-cyclopentadienyltitanium and monocyclopentadienyl-phenyltitanium

SOURCE: Zhurnal obshchey khimii v. 36, no. 8, 1966, 1491-1498

TOPIC TAGS: organotitanium compound, thermal decomposition, chemical bonding

ABSTRACT: In a study of whether thermal reactions of decomposition of pi-cyclopentadienyl compounds of tetravalent titanium are common for different R, and a comparison of the reactions of newly obtained cyclopentadienyl derivatives with the known reactions of tetraphenyl- and diphenyltitanium, the thermal decomposition of $(C_5H_5)_2TiR_2$ was studied, where $R = CH_3, C_6H_5,$ and $C_5H_5Ti(C_6H_5)_3$.

Their reactions with halo-derivatives and oxidation were also studied, and the data obtained were compared with analogous data for tetraphenyltitanium. The new cyclopentadienyl compounds with tetravalent titanium $(C_5H_5)_2TiR_2$, when

heated, exhibited a cleavage of the Ti-R bond, forming titanium compounds of lower valence, analogously to tetraphenyltitanium, which breaks down into diphenyltitanium and diphenyl. The pi- C_5H_5 -Ti bond was unaffected. The

stability of the compounds to thermal decomposition increased in the series:

$(C_6H_5)_4Ti < (C_5H_5)Ti(C_6H_5)_3 < (C_5H_5)_2Ti(C_6H_5)_2$. $C_5H_5Ti(C_6H_5)_3$ was synthesized

Card 1/2

UDC: 547.1'3:546.821

0426 0291

L 1141-04

ACC NR: AP7003667

for the first time, and possessed one pi-bond C_5H_5-Ti and three sigma-bonds C_6H_5-Ti . The products of thermal decomposition: $(C_6H_5)_2Ti$, $C_5H_5TiC_6H_5$, and $(C_5H_5)_2Ti$ were more stable to the action of high temperatures, but were extremely readily oxidized. The reactions of $(C_6H_5)_2Ti$, $C_6H_5TiC_5H_5$, and $(C_5H_5)_2Ti$ with halo-derivatives included cleavage of the phenyltitanium bonds and their replacement by chlorine-titanium bonds. In the reaction of these compounds with chloroform, carbon tetrachloride, mercuric chloride, and hydrogen chloride, the C_5H_5Ti and $(C_5H_5)_2Ti$ groups were unaffected. The titanium-containing final products were $TiCl_4$, $C_5H_5TiCl_3$, and $(C_5H_5)_2TiCl_2$, respectively. The reactions of organotitanium compounds considered illustrate the relative stability of the pi-bond C_5H_5Ti to the action of temperatures, halo-derivatives and other reagents in comparison with the sigma-bond $Ti-R$. [JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 06Jul65 / ORIG REF: 007 / OTH REF: 003

Card 2/2 jb

ACC NR: AP7005110

SOURCE CODE: UR/0079/66/036/009/1702/1705

RAZUVAYEV, G. A., PANKRATOVA, V. N., Scientific Research Institute of Chemistry under the Gor'kiy State University imeni N. I. Lobachevskiy (Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete)

"Photo- and Thermodecomposition of Diphenyl Cadmium in Organic Solvents"

Moscow, Zhurnal Obshchey Khimii, Vol 36, No 9, 66, pp 1702-1705

Abstract: These reactions were investigated either in an atmosphere of dry nitrogen or in a vacuum. The photoreactions were carried out in quartz tubes irradiated with UV light, and the thermal reactions, in molybdenum glass ampoules. The photoreactions were carried out in dioxane and in benzene, and the thermal reactions, in benzene with and without platinum black, on heating at 215-220°C for 75-80 hr. The photoreaction between diphenyl cadmium and dioxane resulted in the separation of metallic cadmium. The phenyl radicals form benzene, capturing hydrogen from the solvent. Irradiation and heating of benzene solutions of diphenyl cadmium resulted in decomposition and the separation of diphenyl and cadmium. Interaction with benzene was observed. There was no exchange of phenyl radicals between benzene and diphenyl cadmium except, insignificantly, in the case of thermal decomposition in benzene. The homolytic photo- and thermodecomposition of diphenyl cadmium follows a course similar to that of the decomposition of diphenyl zinc. Orig. art. has: 3 formulas. [JPRS: 38,970]

TOPIC TAGS: organocadmium compound, thermal decomposition

SUB CODE: 07 / SUBM DATE: 06Jul65 / ORIG REF: 012 / OTH REF: 002

Card 1/1

UDC: 541.144.8 + 547.35

E 10570-67 DWP(3)/LWT(m) RM
ACC NO: A27003056

SOURCE CODE: UR/0079/66/036/005/0952/0953

AUTHOR: Vyazankin, N. S.; Gladyshev, Ye. N.; Razuvayev, G. A.; Korneva, S. P. 25

ORG: none

TITLE: Synthesis and reactions of triethylgermyllithium 1

SOURCE: Zhurnal obshchey khimii, v. 36, no. 5, 1966, 952-953

TOPIC TAGS: organogermanium compound, organolithium compound, silane

ABSTRACT: Triethylgermyllithium was prepared by reaction of bis(triethylgermyl)mercury or tris(triethylgermyl)thallium with lithium in tetrahydrofuran in the absence of atmospheric oxygen in up to 94% yield. Triethylgermyllithium was not isolated from the reaction mixture; its formation was confirmed by reactions with SiHCl_3 and $(\text{C}_6\text{H}_5)_2\text{SiCl}_2$, yielding tris(triethylgermyl)silane and bis(triethylgermyl)diphenylsilane, respectively. Triethylsilane and its analogs react with triethylgermyllithium according to the reaction $(\text{C}_2\text{H}_5)_3\text{GeLi} + (\text{C}_2\text{H}_5)_3\text{M} \rightarrow (\text{C}_2\text{H}_5)_3\text{GeM}(\text{C}_2\text{H}_5)_3 + \text{LiH}$, where M represents Si, Ge, or Sn. Triethylstannyltriethylgermane and triethylsilyltriethylgermane (under more rigorous conditions) were prepared by this method. Orig. art. has: 4 formulas.

[JPRS]

SUB CODE: 07 / SUBM DATE: 29Oct65 / ORIG REF: 003 / OTH REF: 001
Card 1/1

0985 1998

ACC NR: AP6027804

SOURCE CODE: UR/0063/66/011/002/0202/0207

AUTHOR: Razuvayev, G. A. (Professor); Terman, L. M.; Dodonov, V. A.

ORG: none

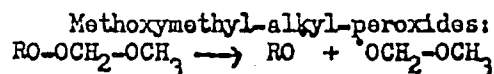
TITLE: Reactions of alkoxy radicals in the liquid phase

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 11, no. 2, 1966, 202-207

TOPIC TAGS: chemical decomposition, radical polymerization, carbonic acid, organic solvent, nonmetallic organic derivative, chemical reaction, benzoyl peroxide, carbonate, phenyl compound, alkyl radical

ABSTRACT: A study was made of the reactivity of simple oxygen radicals obtained by the decomposition of esters of percarbonic acid and certain other compounds in various organic solvents. The following derivatives of percarbonic acid were investigated: Dialkyl-(phenyl)-peroxydicarbonates, Peracyl-alkyl (aryl)-carbonates, bis-/i-alkyl (phenyl)-percarbonatecycloalkyl/-peroxides, Percarbonates with a radical containing a three-membered ring and ter-alkyl-N-benzoylperoxycarbamates.

The decomposition reactions of certain new peroxides were also investigated:



where R = tert-butyl; cumene.

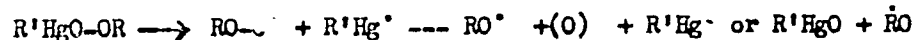
Card 1/2

UDC: 547.024 + 532

L 00654-57

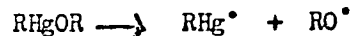
ACC NR: AP6027804

Peroxide compounds of mercury:



where R = cumene; R' = phenyl, benzyl.

Isopropylate of iso-propylmercury:



where R = iso-propyl.

Some of the obtained peroxides appear to be very active initiators of the polymerization of vinyl monomers. Dialkylperoxydicarbonates were studied in detail for this purpose. The constants of the rate of polymerization initiated by benzoyl peroxide and the dinitrile of azoisobutyric acid, and percarbonates were determined. The rate of polymerization in the presence of the percarbonates is significantly higher than in the presence of other substances. The initiating activity increases with the increase in molecular weight of the percarbonates and with branching of the radical. The introduction of the phenyl group in the alkyl radical decreases the polymerization rate constant.

Orig. art. has: 7 formulas and 3 tables. [JPRS: 36,455]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 017 / OTH REF: 003

Cord 2/2 vlr

ACC NR: AP6016846 (A) SOURCE CODE: UR/0026/66/000/005/0048/0053

AUTHOR: Razuvayev, G. A. (Corresponding member AN SSSR); Latyayeva, V. H.
(Candidate of chemical sciences)

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: New class of compounds. Research and discovery of organotitanium derivatives

SOURCE: Priroda, no. 5, 1966, 48-53

TOPIC TAGS: titanium, organotitanium compound, metal industry, pi bonded organo-metallic compound, chemical bonding, chemical synthesis, free radical, polymerization, reaction mechanism, argon, biochemistry

ABSTRACT: This popular science type article reflects a special Soviet interest in titanium and its compounds. The summary of the article even states that wide-spread opinion is being formed on replacing the "iron age" with the "titanium age". It is emphasized that the monument in Moscow erected to honor the conquerors of space is coated with this metal.

It is noted in the article that the use of metallic titanium and its alloys is handicapped by time-consuming and costly refining. However, since titanium is a transition element it is of considerable interest not only in its metallic form, but also in its organometallic compounds. The

Card 1/3

UDC: 546.821

L 42143-66

ACC NR: AP6016846

alkoxy titanium derivatives which are used for the preparation of heat resistant plastics² mainly due to the research made by Academician K. A. Andrianov, are mentioned first.

Secondly, the Ziegler-Natt catalysts are of considerable importance. It is emphasized that the organotitanium compounds supposedly formed in the course of the reactions promoted by these catalysts, and many other known compounds, e.g., biscyclopentadienyltitanium, belong to the class of the so-called "sandwich" compounds or metallocenes in which vacancies in the titanium atom shell are filled by π -electrons of organic radicals. However, true covalent organotitanium compounds were considered to be unattainable until attempts were made to synthesize them at very low temperatures and in an inert gas (argon) atmosphere. Thus, a new class of titanium compounds was obtained: mixed sandwich-covalent compounds and purely covalent compounds. A peculiarity of the latter is their intense color, which is contrary to the colorless covalent organic compounds of nontransition metals.

Covalent organotitanium compounds are not stable at room temperature, are easily oxidized in the air, and are hydrolyzed by moisture. In some cases, these compounds decompose according to the free radical mechanism and can initiate the polymerization of vinyl monomers. Another potential practical application of the reactivity of covalent organic compounds of titanium or some transition metals is the fixation of molecular nitrogen.

Card 2/3

ACC NR: AP601616

(e.g., atmospheric nitrogen) under mild conditions. This application is based on the research of doctor of chemical sciences M. Ye. Vol'pin. This also indicates that organotitanium syntheses are to be conducted in argon as a true inert gas. In some cases, a physiologic activity, e.g., the vasodilatory effect, is produced by organotitanium compounds. Further studies may indicate more fields of application of this new class of compounds. Orig. art. has: 4 figures. [ATD PRESS: 4261-F]

SUB CODE: 07, 11 / SUBM DATE: none / ORIG REF: 001

Card 3/3 172212

L 46201-56 ENT(m)/EMP(j) IJF(c) RM
ACC NR: AP6027955

SOURCE CODE: UR/0020/66/169/003/0579/0582

AUTHOR: Abakumov, G. A.; Abramova, A. A.; Razuvayev, G. A. (Corresponding member AN SSSR)

ORG: Laboratory for Polymer Stabilization, Academy of Sciences, SSSR, Gorkiy (Laboratoriya stabilizatsii polimerov Akademii nauk SSSR)

TITLE: Free radicals in diphenylaralkylamine oxidation

SOURCE: AN SSSR. Doklady, v. 169, no. 3, 1966, 579-582

TOPIC TAGS: free radical, tertiary amine, oxidation mechanism, EPR, DIPHENYLAMINE

ABSTRACT: The mechanism of oxidation of the alkyl aryl tertiary amines, diphenylbenzylamine (I) and diphenyl(triphenylmethyl)amine (II), by 1) oxygen and 2) peroxides was studied by EPR spectroscopy. The experiments were carried out at different concentrations of the amine, usually in benzene solution at room temperature. It was found that oxidation of I by cumene hydroperoxide in the presence of cobalt stearate or by PbO₂ did not proceed in a neutral medium. However, in the presence of acetic acid or trichloroacetic acid, I and II were readily oxidized by PbO₂ or benzoyl peroxide. Likewise, I was readily oxidized by cumene hydroperoxide in the presence of acetic acid, and by atmospheric oxygen in the presence of trichloro- or trifluoro-acetic acid. Based on EPR data, it was proposed that an oxidation of I by

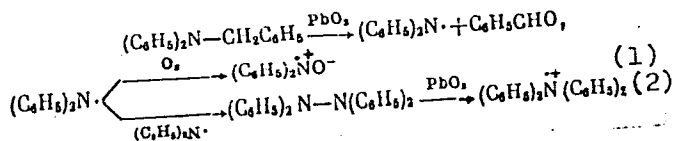
UDC: 541.515+542.943+547.551.2

Card 1/3

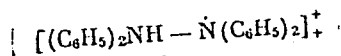
L 46201-66

ACC NR: AP6027955

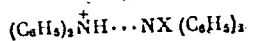
PbO₂ in the presence of acetic acid two competing processes occur:



At low concentrations of the amine, reaction (1) prevails, because the concentration of the oxygen dissolved in the benzene may be commensurate with the (C₆H₅)₂N[•] concentration. At high concentrations of the amine, reaction (2) prevails. Experiments involving II or oxidation with oxygen confirmed this mechanism. On oxidation of I and II by PbO₂ in the presence of trichloroacetic acid, formation of the ion-radical



or of the complex

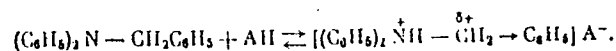


Card 2/3

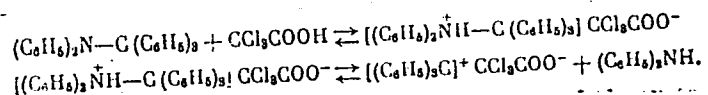
L 46201-66

ACC NR: AP6027955

(where X may be $-N(C_6H_5)_2$ or even $-CH_2C_6H_5$) may be assumed; the primary radical in this case is probably not $(C_6H_5)_2N\cdot$ but rather $(C_6H_5)_2\dot{N}H$. On oxidation of I and II by cumene hydroperoxide in the presence of cobalt stearate and acetic acid, $(C_6H_5)_2\dot{N}O$ was readily formed. Thus, in all cases rupture of the $(C_6H_5)_2N-CA_2n$ bond occurred. The effect of the acid was attributed to its weakening of the N-C bond due to formation of an ionic pair:



This was confirmed by the experimentally established fact of the dissociation of II in an acid medium in the absence of air:



[SM]

Orig. art. has: 2 figures.

SUB CODE: 07/ SUBM DATE: 08Jan66/ ORIG REF: 005/ OTH REF: 006

Card 3/3 fv

L 36991-66 EWP(j)/EWT(m) RM

ACC NR: AP6008513

SOURCE CODE: UR/0062/66/000/001/0181/0182

AUTHOR: Muslin, D. V.; Vasileyskaya, N. S.; Khidekel', M. L.;

Razuvaev, G. A.

ORG: Laboratory of Stabilization of Polymers, Academy of Sciences, SSSR
(Laboratoriya stabilizatsii polimerov Akademii nauk SSSR); Institute of Chemical
Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk
SSSR)

TITLE: 2,4-di-tert-butyl-6-trimethylsilylphenol and the corresponding phenoxyl

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 1, 1966, 181-182

TOPIC TAGS: phenol, chemical synthesis, silane

ABSTRACT: This article describes the synthesis of a steric-hindered phenol (and corresponding phenoxyl) containing a trimethylsilyl group in the ortho-position. 2,4-di-tert.-butyl-6-trimethylsilylphenol is obtained by hydrolysis of 2,4-di-tert.-butyl-6-trimethylsilyl phenoxytrimethylsilane synthesized by the Wurtz-Fittig reaction from 2,4-di-tert.-butyl-6-bromophenoxytrimethylsilane. Upon oxidation of the new steric-hindered compound with an alkali solution $K_3[Fe(CN)_6]$ or PbO_2 , stable 2,4-di-tert.-butyl-6-trimethylsilylphenoxyl is obtained. The electron paramagnetic resonance spectrum of this compound represents a triplet caused by splitting at the meta-protons of the benzene ring.

SUB CODE: 07/ SUBM DATE: 28May65/ ORIG REF: 001/ OTH REF: 002

UDC: 541+541.51+538.113+546.287

Card 1/1

L 31892-66 EWT(m)/ENP(j) RM
ACC NR: AP6012525

SOURCE CODE: UR/0062/66/000/003/0437/0443

55
54
B

AUTHOR: Yegorochkin, A. N.; Khidekel', M. L.; Razuvayev, G. A.

ORG: Scientific Research Institute of Chemistry, Gor'kiy State University (Nauchno-issledovatel'skiy institut khimii Gor'kovskogo gossudarstvennogo universiteta); Institute of Chemical Physics, Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Regularities in the proton magnetic resonance spectra of the elemental organic compounds of the IV group

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 437-443

TOPIC TAGS: silicon compound, germanium compound, tin compound, NMR, magnetic anisotropy

ABSTRACT: Characteristics of chemical proton shifts in silicon, germanium and tin organic compounds and the relationship between induction Taft constants of aliphatic substituents were compared with similar characteristics in related carbon compounds. In the study of carbon-containing compounds, it was discovered that in $\tau = f(\Sigma\sigma^*)$, the Taft constant σ^* is not adequate for describing chemical shifts of CH_3 -protons

Card 1/2

UDC: 543.422 + 546.3 + 541.67

L 31892-66

ACC NR: AP6012525

in $(\text{CH}_3)_{4-n}\text{CX}_n$ type compounds, where X is halogen. Chemical shifts in going from Cl to Br to I derivatives are associated with the diamagnetic anisotropy contribution of the C-X bond. Chemical shifts in $(\text{CH}_3)_{4-n}\text{C}(\text{C}_6\text{H}_5)_n$ are apparently associated with magnetic shifts produced by ring currents due to circulation of π electrons in the benzene ring. Thus, the main contributions to chemical proton shifts in these compounds are due to the inductive effect and magnetic anisotropy of substituted R_1 groups. Comparisons were made of proton magnetic spectra of $(\text{CH}_3)_{4-n}\text{M}(\text{R}_1)_n$ type compounds where M represents Si, Ge and Sn with spectra of $(\text{CH}_3)_{4-n}\text{C}(\text{R}_1)_n$ compounds. It was shown that for compounds of the $(\text{CH}_3)_{4-n}\text{M}(\text{R}_1)_n$ type, where M = Si, Ge, chemical shifts of protons of the methyl group are determined not only by the inductive effect and magnetic anisotropy of substituents, but in the case of $\text{R}_1 = -\text{OCH}_3$, $-\text{OC}_2\text{H}_5$, $-\text{CH}=\text{CH}_2$ also the effect of $d_{\pi}-p_{\pi}$ conjugation. In correlating chemical shifts of protons of the methyl group with σ_{Si}^* constants, obtained from the reaction series containing silicon, the effect ascribed to $d_{\pi}-p_{\pi}$ conjugation is still apparent. Orig. art. has: 3 tables and 4 figures. 7

SUB CODE: 07/ SUBM DATE: 23Oct63/ ORIG REF: 004/ OTH REF: 010

LJ

Card 2/2

L 31880-66 EWT(m)/ETC(f)/EWP(j)/T DS/WW/RM

ACC NR: AP6012534

SOURCE CODE: UR/0062/66/000/003/0562/0564

AUTHOR: Vyazankin, N. S.; Razuvayev, G. A.; Bychkov, V. T.; Zvezdin, V. L.

33

ORG: Laboratory for Stabilization of Polymers, Academy of Sciences SSSR.
(Laboratoriya stabilizatsii polimerov Akademii nauk SSSR)

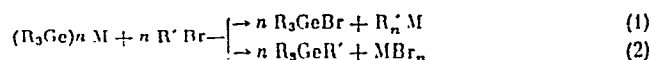
B

TITLE: Reactions of bis(triethylgermyl) cadmium

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 3, 1966, 562-564

TOPIC TAGS: organic synthesis, cadmium compound

ABSTRACT: Two types of reactions are known for the bimetal organic compound, containing Ge-Me bond with monobromo derivatives



Equation (1) is followed in photoreaction of bis(triethylgermyl)-mercury and tris (triethylgermyl)-antimony under the action of heat. Reaction (2) is characteristic for triethylgermyl potassium, triphenylgermyl lithium and related compounds.

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UDC: 547.1'3 + 541.14

L 31880-66

ACC NR: AP6012534

Bis(triethylgermyl)-cadmium reacts in the same manner with alkyl bromide. Continuing the work in this field the authors found that bromobenzene (in contrast to alkyl bromides) does not react with bis(triethylgermyl)-cadmium even where the latter decomposes into hexaethyldigermane and metallic cadmium. On the contrary, the photochemical reaction (1) proceeds very easily under ultraviolet light with bromobenzene, and produces triethylbromogermane, triethylphenylgermane, diphenyl cadmium and cadmium bromide. It was found that bis(triethylgermyl)-cadmium and bis(triethylgermyl)-mercury react with Li(Na) in tetrahydrofurane with the formation of triethylgermyl lithium (sodium) derivative.

SUB CODE: 07/ SUBM DATE: 23Jul65/ ORIG REF: 004/ OTH REF: 007

Card 2/2 *9c*

RAZUVAYEV, G.A.; ETALIS, V.S.; MOROZOVA, Ye.P.

Isomerization of some substituted olefin oxides induced by
hydroxyl radicals. Zhur. org. khim. 1 no.9:1567-1570 S '65.
(MIRA 18:12)

1. Submitted July 15, 1964.

RAZUVAYEV, G.A.; ET AL, V.S.; TRUBINOV, N.B.

Chlorination of some olefin oxides by tert-butyl hypochlorite.
Dokl. Akad. Nauk SSSR. 1965, 161:2128-2131. (MIRA 1965)

1. Submitted December 12, 1964.

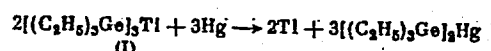
L 16085-66 EPF(n)-2/EWP(j)/EWT(m)/EWP(t) IJP(c) RM/WW/JD/JG
 ACC NR: AP6005934 SOURCE CODE: UR/0079/66/036/001/0160/0160
 AUTHOR: Vyazankin, N. S.; Mitrofanova, Ye. V.; Kruglaya, O. A.; Razuvayev, G. A.
 ORG: Laboratory of Polymer Stabilization, Academy of Sciences SSSR, Gor'kiy
 (Laboratoriya stabilizatsii polimerov Akademii nauk SSSR)
 TITLE: Tris(triethylgermyl)thallium ²⁷₇₄₁₅ B
 SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 160
 TOPIC TAGS: organogermanium compound, thallium compound, organomercury compound
 ABSTRACT: Heating of triethylgermane with triethylthallium for 2 hr at 100° produced ethane and tris(triethylgermyl)thallium (I) in high yields. Compound (I) decomposes at 170° into thallium and hexaethyldigermane with quantitative yields. Its reaction with excess dibromoethane is exothermic and ends after 5-7 min at room temperature:

$$[(C_2H_5)_3Ge]_3Tl + 2C_2H_4Br_2 \rightarrow 2C_2H_6 + TlBr + 3(C_2H_5)_3GeBr$$
_(I)
 (I) reacts with benzoyl peroxide in 2-3 min at 20° to form triethylbenzoyloxygermane
 UDC: 547.13 + 546.683
 Card 1/2

L 16085-66

ACC NR: AP6005934

(63%); C_6H_5COOTl is also formed (92%). (I) reacts with mercury as follows:



All the reactions were carried out in evacuated and sealed ampoules from which atmospheric oxygen had been thoroughly removed.

SUB CODE: 07/ SUBM DATE: 17Jul65/ ORIG REF: 000/ OTH REF: 000

Card 2/2

VYAZANKIN, D.S.; KRUGLAYA, O.A.; RAZUVAYEV, G.A.; SEMCHIKOVA, G.S.

Tri-*n*-(triethylsilyl)-antimony and its analogs. Dokl. AN SSSR
160 no.1:99-102 Ja '66. (MIRA 19:1)

1. Laboratoriya stabilizatsii polimerov AN SSSR, Gor'kiy.
2. Chlen-korrespondent AN SSSR (for Razuvayev). Submitted April 19, 1965.

RAZUVAYEV, G.A.; STEPONIK, L.P.; PERVEYEV, F. Ya.; DEMIDOVA, V.M.;
ALANIYA, V.P.; SOKOLOV, N.A.; KHARCHENKO, V.G.; KRUPINA, T.I.;
KLIMENKO, S.K.; RASSUDOVA, A.A.; GORELIK, M.V.

Letters to the editors. Zhur. org. khim. 1 no. 12:2244-2246
D '65 (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete (for Razuvayev, Stepovik).
2. Leningradskiy gosudarstvennyy universitet (for Perveyev, Demidova).
3. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina (for Alaniya, Sokolov).
4. Saratovskiy politekhnicheskoy institut (for Kharchenko, Krupina, Klimenko, Rassudova).

RAZUVAYEV, G.A.; CHERNOVSKAYA, R.P.; MINSKER, K.S.

Modification of Ziegler catalysts. Khim. kat. 6 no. 5:941-944
S-L 1965. (MIRA 18:11)

RAZUVAYEV, G.A.; KARTASHOVA, N.A.; BOGUNLAVSKAYA, I.S.

peroxide reactions catalyzed by Lewis acids. Part 1. Interaction
of dicyclohexyl peroxydicarbonate with aromatic compounds. Zhur.
org. khim. 1 no.11:1927-1933 N '65. (MIRA 18:12)

1. Submitted July 5, 1964.

4
L 4943-66 EWT(1)/EWT(m)/EPF(c)/EWP(i)/EWP(j)/T/EWP(t)/EWP(z)/EWP(b)/EWA(h)
ACC NR: AP5025697 IJP(c) JD/HW/JG/ RM SOURCE CODE: UR/0286/65/000/018/0047/0047

AUTHORS: ^{44.55}Artemov, A. N.; ^{44.55}Yermolayev, V. I.; ^{44.55}Nazarova, R. G.; ^{44.55}Petukhov, G. G.;
^{44.55}Razuvayev, G. A.; ^{44.55}Solov'yev, I. F.; ^{44.55}Solov'yeva, N. A.; ^{44.55}Sorokin, Yu. A.;
^{44.55}Tyutyayev, I. N. ^{44.55}

ORG: none

TITLE: Method for manufacturing film type electrical resistors. Class 21,
No. 174697

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 47

TOPIC TAGS: electric resistor, chromium, nickel

ABSTRACT: This Author Certificate presents a method for manufacturing thin film
electrical resistors by vacuum deposition of Cr and Ni onto an insulating base.
To improve the adhesion of the metal film to the insulating base and to decrease
the thermal resistance coefficient, dibenzylchromium $(C_6H_5)_2Cr$ is mixed with
dicyclopentadienylcarbonylnickel $(C_5H_5Ni(CO))_2$ in the ratio 1:(2.5-2.7), and the

Card 1/2

UDC: 621.316.849.539.216.2.002.2

09011580

L 4943-66

ACC NR: AP5025697

mixture is heated to the temperature of thermal decomposition.

SUB CODE: EC/ SUBM DATE: 12Mar64

OC
Card 2/2

L 8496-66 EWT(m)/EWP(j)/T RM

ACC NR: AP5026479

SOURCE CODE: UR/0195/65/006/005/0941/0944

AUTHOR: Razuvayev, G.A.; Chernovskaya, R.P.; Minsker, K.S.

ORG: none

TITLE: On Modifying Ziegler catalysts

SOURCE: Kinetika i kataliz, v. 6, no. 5, 1965, 941-944

TOPIC TAGS: heterogeneous catalysis, titanium compound, organoaluminum compound, propylene, catalytic polymerization

ABSTRACT: During the polymerization of propylene, the authors noted a modifying effect of aromatic compounds on the catalyst $\text{TiCl}_3(\text{Si}) + (\text{C}_2\text{H}_5)_3\text{Al}$ at 45C: small amounts of benzene, naphthalene, toluene, and tetrahydronaphthalene slowed down the polymerization, and large amounts accelerated it. In large concentrations, ethylbenzene and isopropylbenzene also accelerated the process, but chlorobenzene slowed it down. The properties of the polypropylene obtained (average degree of polymerization and content of fractions soluble in n-heptane) also depended on the concentration of the aromatic impurity added. Nonaromatic compounds (triethylamine) also were found to have a modifying effect. The

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UDC 541.128'64

L 8496-66

ACC NR: AP5026479

authors note the common nature of the modifying effect of both nucleophilic and electrophilic additive on Ziegler-Natta catalysts; this is accounted for by the concepts of heterogeneous catalysis. It is concluded that in the system $\text{TiCl}_3 + (\text{C}_2\text{H}_5)_3\text{Al} +$ aromatic compound (+ propylene), associates are formed which are very labile and promote a qualitative change of the heterogeneous surface of the catalytic system and a change in its activity. The equilibrium state of this interaction depends both on the chemical nature and concentration of the reagents. Orig. art. has: 3 figures.

SUB CODE: 07 / SUBM DATE: 30Mar64 / ORIG REF: 004 / OTH REF: 002

13/K
Card 2/2

RAZUVAYEV, G.A.; GRAYEVSKIY, A.I.; MINSKER, K.S.; SANGALOV, Yu.A.; MALYSHEVA,
K.M.

Some regularities in the polymerization of vinyl chloride in the
presence of Ziegler-type catalysts. Vysokom. soed. 7 no.8:1364-
1367 Ag '65. (MIRA 18:9)

i. Nauchno-issledovatel'skiy institut khlororganicheskikh produktov
i akrilatov.

L 5061-66 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) RM

ACCESSION NR: AP5025511

UR/0062/65/000/009/1665/1667

542.91+547.17

AUTHOR: Vyazankin, N. S.; Razuvayev, G. A.; Bychkov, V. T.

TITLE: New reactions of bis(triethylgermyl)cadmium

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 9, 1965, 1665-1667

TOPIC TAGS: organogermanium compound, organocadmium compound, organomercury compound, organotin compound, organosilicon compound

ABSTRACT: Bis(triethylgermyl)cadmium (I) was synthesized by reacting triethylgermane with diethylcadmium. Reaction of (I) with acetic acid gave triethylacetoxgermane; with n-propyl alcohol, triethylgermane and triethylpropoxygermane were produced; with triethyltin hydride, triethylgermane and hexaethyldistannane were obtained. Reaction of (I) with triethyltin gave triethylgermane; with mercuric chloride, triethylchlorogermane; and with mercury, bis(triethylgermyl)mercury. From bis(triethylsilyl)cadmium and mercury, bis(triethylsilyl)mercury was obtained, and the reaction of diethylcadmium with mercury yielded diethylmercury.

Card 1/2

L 5051-66

ACCESSION NR: AP5025511

ASSOCIATION: Laboratoriya stabilizatsii polimerov Akademii nauk SSSR, Gor'kiy
(Polymer Stabilization Laboratory, Academy of Sciences, SSSR)

SUBMITTED: 25Dec64

ENCL: 00

NO REF SOV: 007

OTHER: 004

44,5
SUB CODE: OC, GC

ard 2/2 *md*

RAZUVAYEV, G.S.; OSANOVA, N.A.

Photo-decomposition of pentachloroethane. Zhur.ob.khim. 24 no.10:
1771-1775 0 '54. (MLBA 7:12)

1. Gor'kovskiy Gosudarstvennyy universitet.
(Ethane) (Photochemistry)

RAZUVAYEV, G.S.; VYAZANKIN, N.S.

N-Phenylmercurisuccinimide. Akad. Nauk S.S.S.R., Inst. Org. Khim., Sintezy Org. Soedinenii, Sbornik 2, 136-7 '52. (MLRA 6:5)
(CA 48 no.2:624 '54)

RAZUVAYEV, I.

Bimolecular alkylidenearylamines. I. Structure of ethylideneaniline. L. Razuvaev. *Latvian SSR Zinatnu Akad. Vēstis* 1951, 131-6; cf. Eibner, *Ann.* 318, 58(1901).—The binol. ethylideneaniline, m. 126°, is *trans*-2-methyl-1-anilino-1,2,3,4-tetrahydroquinoline (I), formed by cyclization of initially formed $\text{PhNHCHMeCH}_2\text{CH}_2\text{NPh}$. Addn. of 11.6 ml. AcH to 18.6 g. PhNH_2 in 300 ml. EtOH and 200 ml. H_2O gave after 2 days 93% I, m. 126° (from H_2O). 2.7 g. of which with 11 g. KMnO_4 in the presence of MgSO_4 gave quinaldine. I heated with H_2O 6 hrs. remains unchanged. Heated to 300° briefly it yields quinaldine and PhNH_2 . If the reaction mixt. used in the prepn. of I is evapd. after but 1 hr. of reaction and the residue heated with Ac_2O there is formed quinaldine. Refluxing 3 g. I with 10 ml. PhNO_2 7 hrs. yields quinaldine. Letting stand 24 hrs. with excess Ac_2O gave the di-Ac deriv., m. 187-8°; this (3.4 g.) treated with 1.7 g. Br in CHCl_3 gave $\text{C}_{17}\text{H}_{14}\text{O}_2\text{N}_2\text{Br}_2$, m. 153°, which is a direct contradiction to the probable behavior on bromination of the formulation of I given by Eibner (*loc. cit.*), which should yield a dibromide. II. Structure of the products of bromination of 1-benzoyl-2-methyl-4-anilino-1,2,3,4-tetrahydroquinoline. L. Zalu-
kajevs. *Ibid.* 400-72.—In previous work it was shown that binol. ethylideneaniline, m. 126°, is *trans*-2-methyl-1-anilino-1,2,3,4-tetrahydroquinoline and not *trans*-1,3-dianilino-1-butene. Its *Mono-Bz deriv.* (I) (3 g.) in CHCl_3 with 1 g. Br gave 3 g. colorless solid, m. 160-2° (after exposure to air), which is a *HBr salt*, since with NaHCO_3 it liberates CO_2 from the latter, yielding a base $\text{C}_{22}\text{H}_{20}\text{ON}_2\text{Br}$, m. 211-12°. This refluxed 5 hrs. with 1:1 H_2SO_4 gave quinaldine and *p*-Br- $\text{C}_6\text{H}_4\text{NH}_2$ (isolated as the Ac deriv.). I (0.5 g.) with 3.05 g. Br gave $\text{C}_{17}\text{H}_{14}\text{O}_2\text{N}_2\text{Br}_2$, m. 239°, forming a *HBr salt*, m. 180-0°; hydrolysis of this with H_2SO_4 and treatment with BzCl gave quinaldine and 2,4-Br $_2$ $\text{C}_6\text{H}_3\text{NH}_2$ (Bz deriv., m. 133-4°). III. Thermal cleavage of 2-methyl-4-anilino-1,2,3,4-tetrahydroquinolines. *Ibid.* 747-52.—To 9.3 g. PhNH_2 in 10 ml. EtOH was added with cooling 4.4 g. AcH. after an unstated period, the EtOH distd. off and the residue taken up in Et_2O ; distn. gave 1 g. PhNH_2 , 3.7 g. quinaldine, and 2.3 g. product, b $_D$ 110-15°, converted with HNO_3 to a

nitroso deriv. which, heated with Sn-HCl , yielded some tetrahydroquinaldine (HCl salt, m. 138°). Adding 20 g. AcH to 18.8 g. 2-aminopyridine and letting stand 12 hrs. gave 17 g. $\text{MeCH}(\text{NHC}_6\text{H}_4\text{N})_2$, m. 113-16° (from CaH_2). This gently refluxed 15 min. gave 5.5 g. 2-aminopyridine as a distillate, some $\text{MeCH}:\text{CHCHO}$, and 4 g. brown powder, which did not melt sharply and contained 14.5% N; this yielded $\text{MeCH}:\text{CHCHO}$ with H_2SO_4 . Apparently this was a condensation product of 2-(ethylideneamino)pyridine, formed by cleavage of the original base. *trans*-2-Methyl-1-anilino-1,2,3,4-tetrahydroquinoline (I) (cf. 2nd preceding abstr.) left behind a mother liquor, which, treated with 18.6 g. PhNH_2 and 5.6 ml. AcH and allowed to stand 3 days, yielded 9 g. colorless solid, m. 85-6°, identified as *cis*-I, identical with Eibner's base [*Ann.* 318, 58(1901)]. Thermal decompn. of either *cis*- or *trans*-I gave quinaldine, PhNH_2 , and H. G. M. Kosolapoff

RAZUVAYEV, M.I.

Processing of wine making secondary raw materials in factories
of essential oils. Khar.prom. no.3:77 J1-S '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut vinodeliya i
vinogradarstva "Magarach".

(Wine and wine making--By-products)
(Essences and essential oils)

RAZUVAYEV, N.I.; NECHAYEVA, P.F.; KRYUCHKOVA, M.P.

Factors affecting the diffusion of pectin substances into the
solution in the extraction of grape residue. Trudy VNIIViV
"Magarach" 13:173-178 '64. (MIRA 17:12)

RAZUVAYEV, N.I.; OGORODNIK, S.T.; NECHAYEVA, P.F.

Studying the conditions and methods of the production of calcium
tartrate from yeast residues. Trudy VNIIViV "Magarach" 13:
179-189 '64. (MIRA 17:12)

POPOV, K.S., kand. tekhn. nauk; GAYVORONSKAYA, Z.I.; UMANETS, V.P.;
NILOV, V.I.; VALUYKO, G.G.; OKHREMENKO, N.S.; ZHDANOVICH,
G.A.; DATUNASHVILI, Ye.N.; SERBINOVA, N.I.; MARCHENKO, G.S.;
KURAKSINA, N.K.; TYURIN, S.T.; TYURINA, L.V.; KRIMCHAR, M.S.;
RAZUVAYEV, N.I.; OGORODNIK, S.T.; MIKHAYLOV, S. M.;
ZHILYAKOVA, O., red.; GLIKMAN, N., red.; FISENKO, A., tekhn.
red.;

[Wine making; manual for the workers of wineries on state and
collective farms in the Crimea] Vinodelie; rukovodstvo dlia ra-
botnikov vinodel'cheskikh zavodov sovkhov i kol'khozov Kryma.
Simferopol', Krymizdat, 1960. 415 p. (MIRA 16:3)
(Crimea--Wine and wine making)

DENSHCHIKOV, Mikhail Tikhonovich, kand.tekhn.nauk; SILIN, P.M., prof.,
red.; VESELOV, I.Ya., prof., red.; SMIRNOV, V.A., prof., red.;
RZHEKHIN, V.P., red.; LEBEDEV, P.P., red.; KOVALENKO, Yu.T., red.;
KUPCHINSKIY, P.D., red.; BENIN, G.S., red.; P'YANKOV, A.G., red.;
SHNAYDMAN, L.O., red.; MOREV, N.Ye., red.; SHMAIN, M.M., red.;
BULGAKOV, N.I., red.; MAYOROV, V.S., red.; TERNOVSKIY, N.S., red.;
~~RAZUVAYEV, N.I.~~, red.; OGORODNIKOV, S.T., red.; BURMAN, M.Ye., red.;
KHOLOSTOV, V.A., red.; NAMESTNIKOV, A.F., red.; NASAKIN, T.N., red.;
KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn. red.

[Wastes from the food industry and their utilization] Otkhody
pishchevoi promyshlennosti i ikh ispol'zovanie. Izd. 2., dop. i
perer. Moskva, Pishchepromizdat, 1963. 615 p. (MIRA 16:6)
(Food industry--By-products)

RAZUVAYEV, N.I., inzh.; OGORODNIK, S.T.; FADEYEV, A.I., inzh.

Processing by-products of the wine industry at essential-oil mills.
Masl.-zhir.prom. 26 no.7:32-34 J1 '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut vinodeliya i
vinogradarstva "Magarach" (for Razuvayev, Ogorodnik). 2. Krymskiy
efiromaslichnyy sovkhoz-zavod (for Fadeyev).
(Essences and essential oils)
(Wine making)

ZOLOTOV, V.A.; RAZUVAYEVA, O.G.

To keep the subscribers satisfied. Vest. svyazi 25 no.3:19-20 Mr '65.
(MIRA 18:5)

1. Nachal'nik Gor'kovskoy mezhduгородnoy telefonnoy stantsii (for
Zolotov).

ASHKENAZI, Yelena Konstantinovna, kand.tekhn.nauk. Prinimali uchastiye:
POZDEYAKOV, A.A., inzh.; KRAVTSOV, B.A., inzh.; KACHESOV, A.N., inzh.;
BUROV, M., student; ZVEREV, N., student; RAZUVAYEV, V., student;
ROBUSH, O., student; SAMSONOVA, Ya., student. KUSHNEL'EV, N.G., red.;
GVIRTIS, V.L., red.izd-va

[Anisotropy of mechanical properties of some glass plastics; verbatim
report of a lecture] Anizotropiia mekhanicheskikh svoistv neko-
torykh stekloplastikov; stenogramma lektsii. Leningrad, Leningr.
Dom nauchno-tekh.propagandy, 1961. 62 p. (MIRA 14:12)
(Anisotropy) (Glass reinforced plastics)

POLYAKOV, L.P.; RAZUVAYEV, V.D.; GOLIKOV, A.Ye.

New method for excluding lost-circulation zones in well drilling.
Buranie no.9:8-10. '65. (MIRA 18:10)

1. Konstruktorskoye byuro neftyanoy i gazovoy promyshlennosti
ob"yedineniya "Saratovneftegaz".

MOLDAVSKIY, Oleg Petrovich; MARKUSHIN, Gennadiy Nikolayevich;
POLYAKOV, Lev Petrovich; RYZHUVAYEV, Vladimir
Dmitriyevich; SIPALOVA, L., red.

[Improving boring equipment and technology] Sovershen-
stvovanie tekhniki i tekhnologii burochniya. [By] O.P.
Moldavskiy i dr. Saratov, Saratovskoe knizhnoe izd-vo,
1963. 80 p. (MIRA 17:7)

RAZUVAYEV, V. V. (Krym)

Automatic operation of pumping stations on fecal sewerage lines.
Vod. i san. tekhn. no.9:7-8 S '60. (MIRA 13:11)
(Pumping stations) (Liquid level indicators)
(Sewerage)